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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,769	06/28/2006	Frank Schroder	4385-053487	8049

28289 7590 07/06/2007  
THE WEBB LAW FIRM, P.C.  
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PITTSBURGH, PA 15219

EXAMINER
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BALASUBRAMANIAN, VENKATARAMAN

ART UNIT	PAPER NUMBER
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1624

MAIL DATE	DELIVERY MODE
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07/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,769	<b>Applicant(s)</b> SCHRODER ET AL.	
	<b>Examiner</b> /Venkataraman Balasubramanian/	<b>Art Unit</b> 1624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/2/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

The preliminary amendment, which included cancellation of claims 1-16 and addition of new claims 17-37, filed on 12/8/2005, is made of record. Claims 17-37 are now pending.

#### ***Information Disclosure Statement***

References cited in the Information Disclosure Statement, filed on 4/2/2007, are made of record.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Schroder et al., US 7,176,309.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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Claims 17-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroder et al., US 7,176,309 in view of Zhang et al., WO 2004/085413.

Teaching of Schroder et al., as discussed in the above 102 rejection is incorporated herein. As noted above, Schroder et al., teaches process of melamine coming for a high-pressure process. In column 2, Schroder et al., recites,

The melamine melt to be worked up by the present process originates from a high-pressure process and is passed to the quencher at a temperature of about 330 to 400° C., preferably from about 330 to 380° C., particularly preferably from about 330 to 360° C. and at a pressure from about 50 to 600 bar, preferably from about 50 to 250 bar, "particularly preferably from about 70 to 170 bar.

Thus, Schroder teaches a melamine melt obtained from a process operating at a temperature range 330 to 380° C and pressure range 50 to 600 bar.

Instant claims require a temperature range of 350 to 400° C and pressure range of 550 bar to 800 bar to maintain a supercritical state of intermediate or end product.

Thus, the process disclosed in Schroder et al., clearly anticipates the instant process.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroder et al., US 7,176,309 in view of Zhang et al., WO 2004/085413.

Teaching of Schroder et al., as discussed in the above 102 rejection is incorporated herein. As noted above, Schroder et al., teaches process of melamine coming for a high-pressure process. In column 2, Schroder et al., recites,

The melamine melt to be worked up by the present process originates from a high-pressure process and is passed to the quencher at a temperature of about 330 to 400° C., preferably from about 330 to 380° C., particularly preferably from about 330 to 360° C. and at a pressure from about 50 to 600 bar, preferably from about 50 to 250 bar, "particularly preferably from about 70 to 170 bar.

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Thus, Schroder teaches a melamine melt obtained from a process operating at a temperature range 330 to 380° C and pressure range 50 to 600 bar.

Instant claims require a temperature range of 350 to 400° C and pressure range of 550 bar to 800 bar to maintain a supercritical state of intermediate or end product.

Thus, the process disclosed in Schroder clearly anticipates the instant process.

Schroder et al., is silent about the reactor used for the melamine under above conditions and nature of the reactor and the nature of the reactants during the reaction. As seen above, under the operating conditions, requirement for the supercritical state is met with.

Also note In re Bruckel, which states " References must be considered under 35 U.S.C 103, not only for what it expressly teaches but also for what it fairly suggests; all disclosures of prior art, including unpreferred embodiments must be considered in determining obviousness". In re Bruckel, 201 USPQ 67.

The secondary reference Zhang et al., clearly teaches the use of single reactor for making melamine. See Abstract of WO 2004/085413. Note the temperature range and the pressure range.

Hence, it would be obvious to one trained in the art to operate the melamine process within the temperature rang pressure range taught by Schroder et al., and in a single reactor as taught by the secondary reference. Thus, one having ordinary skill in the art at the time of the invention was made would have been motivated to employ the process taught by combined primary and secondary references to the starting materials and reactants of the instant invention under temperature range and pressure taught



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therein and expect to obtain the desired product because he would have expected the analogous starting materials and reactants react similarly in view of the teaching of the prior art. It has been held that application of an old process to an analogous material to obtain a result consistent with the teachings of the art would have been obvious to one having ordinary skill. Note In re Kerkhoven 205 USPQ 1069.

### **Conclusion**

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

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Venkataraman Balasubramanian

6/27/2007